

REMARKS

Upon entry of the present amendment, claims 1-27 and 42-67 will be pending with claims 1, 42 and 67 being the independent claims. Claims 1 and 42 have been amended herein to more clearly recite the invention based on inherent aspects of Applicants' claimed canonical UI description. Claim 67 has been newly added to substantially correspond to claim 1 in means-plus-function format. No new matter has been added.

In the Official Action, dated October 6, 2004, claims 1-17, 20, 21, 24-27, 42-58, 61-62, and 65-66 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,587,125 (Paroz), and Claims 18-19, 22-23, 59-60, and 63-64 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over Paroz. The outstanding rejections to the claims are respectfully traversed.

Summary of the Invention

The present invention relates generally to a method and system for providing a remote control experience tailored to a user, based upon a common abstracted user interface language capable of being understood by a variety of computing devices, including household appliances, and everything having a user interface for control. **As the user encounters various devices or applications to be controlled and indicates a desire to control a particular device or application, the device or application to be controlled sends a canonical user interface description of its UI to the universal console (UC). The canonical UI description may also come from another source.** The canonical UI description adheres to an abstract format to describe in high-level terms the functionality of the device's UI. (See Application, page 7, lines 12-18)

As shown in Fig. 3, a user interacts with a UC in order to specify a set of preferences to be communicated to the UC along communications channel, which may include specifying a disability such as blindness, color blindness, etc. Once a user has located an application or device to control with the UC, the UC receives a canonical UI description from the application or device along a communications channel. The canonical UI description may come from alternate sources

as well. Notifications and other output(s) from the device may also be communicated via the channel. The UC renders a concrete UI to the user of the UC, so that the user may communicate action-commands with associated parameters to the application or device being controlled along communications channel.

In a typical scenario, before a vendor brings a device to market, **the vendor designs a canonical UI representation of the device's UI in accordance with the specification of the canonical UI syntax**. The vendor may do this directly, or the vendor could automate the transformation of an HTML-based UI into a canonical UI via abstraction. In one embodiment, the result is an XML stream that describes the action-commands the device accepts and an abstract UI that enables the user to choose what he or she wants the device to do, determining which action-commands the UC should invoke. Also, for each action-command that has parameters, the canonical UI includes a description, such as an XML description, for gathering the values of those parameters (See Application, page 15, lines 11-19).

Paroz

Paroz discloses a method for remotely controlling a first computing device from at least one of a plurality of second computing devices. The first computing device has a user interface and a data communications connection to the second computing device and the second computing device is adapted to present a user interface. The method comprises analyzing the static and dynamic logic of the first computing device's user interface and creating a logically equivalent user interface in a platform-independent format for the second computing device. The equivalent user interface enables control of the first coupling device from the second computing device.

As illustrated by Figs. 1, 2, and 7 of Paroz, the second user interface running on the second computing device ("remote interface") communicates with the first computing device ("local program") via two software intermediaries: (1) a mediator software program and (2) a local server software program. The local server comprises three active software components: a window analyzer, a command executor, and a visual status monitor.

The **mediator sends the second computing device a set of Dynamic Hypertext Markup Language (DHTML) or Wireless Markup Language (WML) pages**, which run on the second computing device's Web browser. These **pages form the second user interface** by which a user can control the first computing device 17. (See Col. 8, lines 19-24)

Fig. 4 of Paroz shows the primary components of the local server 18, which runs on the first computing device. **When a program is first selected by a remote user, the local server 18 activates the program (if it is not already active) and the window analyzer 34 generates a DHTML page for each layout.** (See Col. 8, lines 51-56) The **visual status monitor 30 monitors GUI events** (e.g., Windows messages) generated by the local program **and updates the widgets (DHTML page) running on the second computing device.** (See Col. 8, line 66 to Col. 9, line 2)

The window analyzer takes a GUI object identifier (e.g., HWND in the Windows environment) as input and analyzes the construction of the GUI object and its child GUI objects. The analysis is logical, i.e., the window analyzer identifies the UI object type (button, list, etc.) and creates a database record consisting of three parts: the object's static attributes (e.g., size, visibility state, etc.), the object's interface to the local program, and the object's interface to the second computing device (col. 9, lines 12-20).

Rejections under 35 U.S.C. § 102(e) and § 103(a)

The above bolded and underlined passages highlight at least one distinction between the present invention, as amended, and Paroz. In particular, with the invention, the canonical UI description sent by the application or device to the universal console is pre-defined for the application or device. Thus, the canonical UI description is sent to the universal console by the application or device itself, or a pre-defined canonical UI description is retrieved from an alternate source known by the UC. In either case, the canonical UI description of the invention is not dynamically generated on the fly after the application is activated as disclosed by Paroz, but rather is defined prior to activating the application or device.

Thus, in combination with all of the other elements of the claims, Paroz cannot be considered to teach or suggest **“at least one computing element each having a pre-defined canonical user interface (UI) description associated therewith,”** as recited in claim 42, or similarly cannot be said to teach or suggest “receiving by the UC a canonical user interface (UI) representation of the computing element's UI **wherein the canonical UI representation is pre-defined for the computing element,”** as recited in claim 1. Newly added claim 67 is believed allowable for the same reasons presented with respect to claim 1.

Moreover, Applicants note that the official notice taken by the Examiner in this and the previous Official Action was not explicitly traversed as a separate matter in Applicants' first response because Applicants addressed the rejection to the applicable dependent claims on independent grounds. In particular, the dependent claims were believed allowable for the same reasons as presented with respect to the independent claims. Accordingly, Applicants respectfully deny admitting any official notice as prior art, since Applicants traversed the rejections based on official notice on different grounds.

Claims 2-27 and 43-66 depend either directly or indirectly from claims 1 and 42, respectively, and are believed allowable for the same reasons. Accordingly, Applicants submit that claims 1-27 and 42-67 patentably define Paroz. Withdrawal of the rejection of claims 1-17, 20, 21, 24-27, 42-58, 61-62, and 65-66 under § 102(e), and claims 18-19, 22-23, 59-60, and 63-64 under § 103(a) is thus earnestly solicited.

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CONCLUSION

Applicants believe that the present Amendment is responsive to each of the points raised by the Examiner in the Office Action, and submit that Claims 1-27 and 42-67 of the application are in condition for allowance. Favorable consideration and passage to issue of the application at the Examiner's earliest convenience is earnestly solicited.

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